Applicant: Schneider al.

Serial No.: 10/520,690 Our Docket: 13645PCTUS

Preliminary Amendment

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original): Identification method for verifying the authenticity of an object, characterised

in that the action of human saliva or constituents contained therein upon a marker, which

is bound to the object or contained therein, generates a specific signal, and this signal is

evaluated.

2. (original): Identification method according to Claim 1, characterised in that an enzymatic

activity contained in human saliva acts on the marker and at least one of the reactions

catalyzed by this enzymatic activity directly or indirectly leads to the generation of a

specific signal.

3. (original): Identification method according to Claim 2, characterised in that the enzymatic

activity is the activity of lysozyme, lactoferrin, of an amylase or a peroxidase or a

combination thereof.

4. (currently amended): Identification method according to Claim 2 [[or 3]], characterised in

that the marker contains at least one substrate for the enzymatic activity contained in

human saliva and at least one reaction catalyzed by this activity results in at least one

reaction product, which, as such or in combination with a suitable indicator system.

generates a specific signal.

5. (currently amended): Identification method according to Claim 1 - one of the Claims 1-4.

characterised in that the marker comprises microcapsules and/or microparticles, which are

opened by the action of human saliva or constituents contained therein, so that at least one

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enclosed ingredient and/or one bound component of the microcapsules and/or

microparticles is released and directly or indirectly generates a specific signal.

6. (original): Identification method according to Claim 5, characterised in that the

microcapsules and/or microparticles comprise materials on the basis of starch or chitosan,

which are opened by the action of human saliva or components contained therein.

7. (original): Identification method according to Claim 6, characterised in that the starch-

based materials comprise or consist of starch, modified starch or starch derivatives.

8. (currently amended): Identification method according to Claim 6 [[or 7]], characterised

in that the starch-based materials comprise or consist of a hydroxyalkyl starch, e.g.

hydroxyethyl starch, or cyclodextrin.

9. (currently amended): Identification method according to Claim 5 -one of the Claims 5-8.

characterised in that at least one released ingredient or a component of the microcapsules

and/or microparticles enters into a chemical or physical-chemical reaction and leads to the

formation of at least one reaction product that directly or indirectly generates a specific

signal.

10. (original): Identification method according to Claim 9, characterised in that the chemical

reaction is an enzyme-catalyzed reaction.

11. (currently amended): Identification method according to Claim 5 - one of the Claims 5

10 , characterised in that at least one released ingredient or component of the

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microcapsules and/or microparticles is a catalyst and, after the release, catalyzes a

reaction that leads to the formation of at least one reaction product that directly or

indirectly generates a specific signal.

12. (original): Identification method according to Claim 11, characterised in that the catalyst

is an enzyme.

13. (currently amended): Identification method according to Claim 9 -one of the Claims 9

12, characterised in that the signal is generated by the combination of at least one

reaction product with a suitable indicator system.

14. (currently amended): Identification method according to Claim 5 one of the Claims 5 8,

characterised in that the release of the at least one ingredient or component of the

microcapsules and/or microparticles directly generates a specific signal.

15. (currently amended): Identification method according to -one of the Claims 5 14,

characterised in that a microcapsule or a microparticle encloses several ingredients or

components.

16. (currently amended): Identification method according to Claim 5, one of the Claims 5

15 characterised in that the marker comprises two or more microcapsule collectives

and/or microparticle collectives that contain different ingredients or constituents and/or

that are opened under different conditions.

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17. (original): Identification method according to Claim 16, characterised in that some or all

of the components necessary for generating the signal, with the exception of the saliva

components, are distributed among two or more of the marker's microcapsule collectives

and/or microparticle collectives.

18. (currently amended): Identification method according to Claim 5 one of the Claims 5-9,

characterised in that at least one of two specific binding partners or both is / are enclosed

in microcapsules or microparticles, and that these bind together after the release of the at

least one binding partner, wherein a specific signal is generated as a result of the binding.

19. (original): Identification method according to Claim 18, characterised in that the binding

partners are complementary single-stranded nucleic acid molecules that hybridize with

each other into a double-strand after the release, wherein a specific signal is generated as

a result of the hybridization.

20. (original): Identification method according to Claim 19, whereby the signal is generated

by the intercalation of a dye or fluorescent dye into the nucleic acid double-strand.

21. (currently amended): Identification method according to Claim 19 [[or 20]], characterised

in that auxiliary agents, e.g. zinc oxide, are used to protect the nucleic acid from UV

radiation.

22. (currently amended): Identification method according to Claim 5 one of the Claims 5

21, characterised in that the microcapsules and/or microparticles are located in a medium

or matrix.

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23. (original): Identification method according to Claim 22, characterised in that the medium

or matrix contains at least one additional component that is necessary or advantageous for

generating the signal.

24. (original): Identification method according to Claim 23, characterised in that the at least

one additional component is a catalyst, e.g. an enzyme or reaction partner for a reaction

that leads to the formation of at least one reaction product that directly or indirectly

generates a specific signal.

25. (original): Identification method according to Claim 24, characterised in that the signal is

generated by the combination of at least one reaction product with a suitable indicator

system.

26. (currently amended): Identification method according to one of the Claims 1 25,

characterised in that the signal is a visual signal.

27. (original): Identification method according to Claim 26, characterised in that the signal is

generated by means of inorganic and/or organic coloured compounds in a solid or

dissolved state.

28. (currently amended): Identification method according to Claim 26 [[or 27]], characterised

in that released ions form coloured solutions, colloids or poorly soluble precipitates and in

this way generate a specific signal.

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- 29. (currently amended): Identification method according to Claim 26 [[or 27]], characterised in that the signal is generated by the formation of charge-transfer complexes.
- 30. (original): Identification method according to Claim 28, characterised in that the signal is generated by means of the sudden change in colour of an indicator, preferably a pH indicator.
- 31. (currently amended): Identification method according to Claim 1 -one of the Claims 1

 25-, characterised in that the signal is perceived with the sense of smell or the sense of taste.
- 32. (currently amended): Identification method according to Claim 1 -one of the Claims 1 30-, characterised in that a signal is generated that can be evaluated by using suitable instruments.
- 33. (currently amended): Identification method according to Claim 1—one of the Claims 1—32—, characterised in that a simple auxiliary device that is not an instrument is used for generating and / or evaluating the signal.
- 34. (currently amended): Identification method according to Claim 1 —one of the Claims 1—33—, characterised in that multiple different signals are generated at different locations on the object.

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- 35. (currently amended): Identification method according to Claim 1—one of the Claims 1—34—, characterised in that multiple different signals are generated simultaneously or staggered in time, and that the resulting complex signal pattern is evaluated.
- 36. (currently amended): Identification method according to Claim 1 one of the Claims 1 35—, characterised in that the signal is or the signals are generated directly on the object.
- 37. (original): Composition comprising one collective or multiple collectives of microcapsules and/or microparticles, which can be opened by the action of human saliva or constituents contained therein, in a liquid medium or matrix, wherein the composition contains all the components necessary for the generation of a signal, with the exception of the saliva constituents, in the microcapsules/microparticles and/or in the medium or matrix, wherein at least one of the components necessary for generating the signal is enclosed in the microcapsule or microparticle collective(s) in such a way that a signal can result only after the release of this component by the action of human saliva or constituents contained therein.
- 38. (original): Composition according to Claim 37, characterised in that the microcapsules and / or microparticles comprise materials on the basis of poly-L-lysin, starch or chitosan or derivatives thereof.
- 39. (currently amended): Composition according to Claim 37 [[or 38]], characterised in that all components that are necessary for generating the signal, with the exception of the saliva constituents, are enclosed in one or more microcapsule and/or microparticle collective(s).

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40. (original): Composition according to Claim 39, characterised in that it is a single

component in a single microcapsule or microparticle collective.

41. (previously presented): Identification method for verifying the authenticity of an object,

characterised in that the action of mechanical shearing forces on a marker that is bound to

the object or contained therein generates a specific signal, and this signal is evaluated.

42. (previously presented): Identification method according to Claim 41, characterised in that

the action of mechanical shearing forces and solvents on a marker that is bound to the

object or contained therein generates a specific signal, and this signal is evaluated.

43. (currently amended): Identification method according to Claim 41 - Claims 41 and 42 ,

characterised in that the marker comprises microcapsules and/or microparticles which are

opened by the action of mechanical shearing forces, so that at least one enclosed

ingredient and/or bound constituent of the microcapsules and/or microparticles is released

and directly or indirectly generates a specific signal.

44. (original): Composition according to Claim 43, comprising a collective or multiple

collectives of microcapsules and/or microparticles, which can be opened by the action of

mechanical shearing forces, in a liquid medium or matrix, wherein the composition

contains, in the microcapsules/microparticles and/or in the medium or matrix, all

components necessary for the generation of a signal, wherein, however, at least one

component necessary for generating the signal is enclosed in the microcapsule or

microparticle collective(s) in such a way that a signal can result only after the release of

this component by the action of mechanical shearing forces.

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45. (previously presented): Composition according to Claim 44, characterised in that a signal can result only after the action of mechanical shearing forces and solvents on the

composition.

46. (currently amended): Composition according to Claim 44 - Claims 44 and 45 , comprising

a collective or multiple collectives of microcapsules and/or microparticles, which can be

opened by the action of mechanical shearing forces, in a liquid medium or matrix,

wherein the composition contains, in the microcapsules/microparticles and/or in the

medium or matrix, all components necessary for the generation of a signal, whereby,

however, at least one component necessary for generating a signal is enclosed in the

microcapsule or microparticle collective(s) in such a way that a signal can result only

after the release of this component by the action of mechanical shearing forces and/or

solvents.

47. (currently amended): Use of the composition according to Claim 44 Claims 44 to 46

for identification of the manipulation of an object marked with this composition.